

What is claimed is:

1. For use in a gravity flow roller track system for transporting product containers, a roller track comprising:
  5. a roller tray having a bottom and first and second side supports, the first side support comprising a first support wall, a first extension wall, and a guide wall, the first support wall extending substantially normal to the bottom, the first extension wall extending downwardly and outwardly from a top edge of the first support wall, the guide wall extending substantially normal to the bottom from an outside edge of the extension wall, the second side support comprising a second support wall and a second extension wall, the second support wall extending substantially normal to the bottom and having a plurality of apertures therein configured to receive a joining clip and the second extension wall extending downwardly and outwardly from a top edge of the second support wall, each of the first and second support walls including a plurality of spaced recesses; and
    10. a plurality of rollers having first and second ends, the first and second ends being mounted in the plurality of recesses.
2. A roller track as defined in claim 1, wherein the joining clip includes one or more tines and at least one guide pin and at least some of the apertures in the plurality are arranged in a group that includes a pair of apertures configured to receive the tines of the joining clip and an aperture configured to receive the guide pin of the joining clip.
  20. 3. A roller track as defined in claim 1, wherein the first side support is substantially z-shaped in vertical cross-section.
  4. A roller track as defined in claim 1, wherein the roller tray is integrally formed.
30. 5. A roller track as defined in claim 1, wherein each of the plurality of rollers includes first and second end hubs, and wherein top portions of the spaced

recesses are slightly smaller in diameter than the end hubs, the hubs being frictionally held within the spaced recesses.

6. A roller track as defined in claim 1, wherein the rollers are positioned  
5 to extend above the first and second extension walls.

7. A roller track as defined in claim 1, wherein the first and second extension walls extend from the respective first and second support walls at acute angles.

10  
8. A roller track as defined in claim 1, wherein the first and second extension walls each extend downwardly and away from the first and second support walls, respectively, at angles within the range of approximately 45 degrees to approximately 85 degrees.

15  
9. A selectable width gravity feed roller system comprising:  
a first roller tray having a plurality of rollers and first and second sides being fixedly separated, the first and second sides supporting the rollers, the first side having a first height and the second side having a second height that is less than the first height;  
20 a second roller tray having a plurality of rollers and first and second sides being fixedly separated, the first and second sides supporting the rollers, the first side having a first height and the second side having a second height that is less than the first height; and  
25 a joining clip operable to connect the first roller tray to the second roller tray.

10. A system as defined in claim 9, wherein each of the second sides of the first and second roller trays include a plurality of apertures defined therein and the joining clip includes protruding tines configured to engage with respective ones of the 30 plurality of apertures for operably connecting the first roller tray to the second roller tray.

11. A system as defined in claim 9, wherein the joining clip has a top portion defining a slot formed therein; and further comprising:

a divider bar configured to engage with the slot.

5 12. A system as defined in claim 11, wherein the divider bar is selectively placed in the slots of the joining clips to divide the first and second roller trays into two dispensing roller trays.

10 13. A system as defined in claim 9, wherein the tines comprise a center post and a pair of flexible arms, each of the arms being joined at one end to the center post, the flexible arms having a normal biased position.

15 14. A system as defined in claim 13, wherein the flexible arms are configured to move toward the center post when being inserted into the respective apertures due and return to the normal biased position when the tines are fully inserted into the aperture such that the tines are locked into the apertures.

20 15. A system as defined in claim 9, wherein the apertures further comprise guide apertures and the joining clip comprises first and second sides having guideposts configured for insertion into respective ones of the guide apertures to locate the joining clip in a prescribed position.

25 16. A system as defined in claim 15, wherein the prescribed position comprises a position where the tines may properly engage with the respective ones of the apertures.

17. A system as defined in claim 15, wherein the guideposts have a length greater than a length of the tines.

30 18. A system as defined in claim 13, wherein the flexible arms and center post define a generally arrow shape profile.

19. A clip for joining a plurality of roller trays in a gravity feed roller system, wherein each of the roller trays comprises a side defining a plurality of apertures, the clip comprising:

first and second sides respectively having at least one protruding tine  
5 configured to engage with respective ones of the plurality of apertures to connect two or more of the plurality of roller trays.

20. A clip as defined in claim 19, wherein each of the protruding tines comprises a center section and a pair of flexible arms each joined at one end to the  
10 center section, the flexible arms having a normal biased position.

21. A clip as defined in claim 20, wherein the flexible arms are configured to move toward the center section when being inserted into the respective apertures and return to the normal biased position when the tines are fully inserted into the  
15 aperture such that the tines are locked into the apertures.

22. A clip as defined in claim 19 wherein the apertures further comprise guide apertures and the first and second sides include guideposts configured for insertion into respective ones of the guide apertures to locate the clip in a prescribed  
20 position.

23. A clip as defined in claim 22, wherein the prescribed position comprises a position where the tines may properly engage with the respective ones of the apertures.

24. A clip as defined in claim 22, wherein the guideposts have a length greater than a length of the tines.

25. A clip as defined in claim 19, wherein the clip has a top portion defining a slot formed therein that is configured to engage with a divider bar.

26. A clip as defined in claim 25, wherein the divider bar member is selectively placed in the slot to divide the first and second roller trays in the plurality of roller trays into two dispensing roller trays.

5 27. A clip as defined in claim 25, the clip having a thickness that causes a gap to be defined between the first and second roller trays such that the slots are engageable with the divider bar member.

10 28. A gravity feed roller system for dispensing products comprising:  
a plurality of rollers;  
a plurality of roller trays each having first and second substantially vertical sides supporting the rollers to form a first roller dispensing surface, the first vertical side having a first height and the second side having a second height that is less than the first height;  
15 means for connecting at least two of the roller trays along the second sides to form a second roller dispensing surface, the second roller surface including at least two of the first roller dispensing surfaces.

20 29. A system as defined in claim 28, further comprising a divider located at a junction of the second sides of the connected roller trays to selectively divide the second roller dispensing surface into two separate product dispensing surfaces.

25 30. A system as defined in claim 28, wherein the first vertical side extends above the roller dispensing surface in the vertical direction and the second vertical side lies below the roller dispensing surface in the vertical direction.

30 31. A system as defined in claim 28, wherein the means for connecting comprises a joining including generally vertically-oriented slots to receivably retain a removable divider bar member to selectively separate the respective first roller dispensing surfaces of the plurality of roller trays.

32. A system comprising:

a first roller tray;  
a second roller tray; and  
a clip to connect the first and second roller trays to form a first roller surface having a first width.

5

33. A system as defined in claim 32, further comprising:  
a divider for selectively engaging the clip to selectively divide the first roller surface into a second roller surface and a third roller surface.

10

34. A system as defined in claim 33, wherein the second roller surface has a second width and the third roller surface has a third width.

35. A system as defined in claim 34, wherein the second width and the third width are substantially the same.

15

36. A roller tray comprising:  
a first wall having a first height and supported to receive and journal roller ends of a plurality of rollers; and  
a second wall having a second height that is lower than the first height and supported to receive and journal other roller ends of the plurality of rollers;  
wherein the plurality of rollers are journaled in the first and second walls to define a roller surface, the roller surface being below the first height and above the second height.

25

37. A roller tray as defined in claim 36, wherein the second wall includes means for connecting the roller tray to another roller tray in order to selectively increase a size of the roller surface.

30

38. A roller tray as defined in claim 37, wherein the means for connecting the roller tray to another roller tray includes a plurality of apertures and a clip that engages with the plurality of apertures.

39. For use with a first roller tray and a second roller tray, a clip comprising:

- a body having a first side and a second side;
- first and second locating lugs respectively projecting from the first and second sides;
- first and second tines respectively projecting from the first and second sides, the locating lugs and the tines being dimensioned to connect the first and second roller trays; and
- a slot defined in a top of the body for selectively receiving a divider to separate the first and second roller trays.

40. A clip as defined in claim 39, the body having a thickness that creates a gap between a side of the first roller tray and another side of the second roller tray sufficient to allow the divider to be received in the top of the body.

15

41. For use in a roller track system for transporting product containers, a method for providing selectable dispensing surface widths comprising:

- providing first and second roller trays, each having a plurality of rollers defining respective first and second dispensing surfaces;
- 20 connecting the first and second roller trays together at respective joining surfaces of the first and second trays with means for connecting the trays, wherein the joining surfaces of the first and second trays do not extend in an upward direction above the first and second dispensing surfaces defined by the plurality of rollers and a third dispensing surface is correspondingly defined from a combination of at least a portion of the first and second dispensing surfaces; and
- 25 selectively disposing a removable divider member between the first and second roller trays that is operable to selectively divide the third dispensing surface.

30

42. A method as defined in claim 41, wherein connecting the first and second roller trays includes providing means for joining the trays at the joining surfaces.

43. A method as defined in claim 42, wherein the means for joining the trays includes a clip having generally vertically-oriented slots to receivably retain the removable divider member to selectively separate the third dispensing surface into at least a portion of the respective first and second dispensing surfaces of the first and 5 second roller trays.